

REMARKS

Upon entry of the above amendments, claims 46-91 will be pending. Applicants reserve the right to pursue subject matter that will no longer be pending after the amendment above, or which has not yet been pursued, in a related application. The claim amendments add no new matter.

Applicants respectfully request consideration of the pending claims.

Continued Examination Under 37 CFR 1.114

Applicants thank the Examiner for withdrawing the finality of the previous Office Action, and entering Applicants' submission filed on 06 March 2006.

Claim objections

Claim 52 was objected to, the Examiner stating that it appeared that a part of the claim is missing or has been lost to the margin. Applicants thank the Examiner for pointing out this inadvertent error, and have corrected claim 52 by fixing the formatting of the margins in the document.

Claim Rejections – 35 USC §112, Second Paragraph

Claims 46-91 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner stated that the term “probable peak” in claims 46, 84, 86, and 87 is unclear, that it is “not defined by the specification nor does the claim reflect the meaning of the term.” The Examiner questioned how the term “probable peak” is related to the term “putative peak.” Applicants respectfully request that this rejection be withdrawn.

The claims have been amended to replace the term “probable peak” with the term “putative peak,” to improve the clarity of the claims.

As detailed in the specification, there are putative peaks present in the intermediate data set; putative peaks are also then present in the corrected data set, after the residual baseline is removed from the intermediate data set. At page 19, lines 3-14, and page 20, lines 13-18, the specification discusses the analysis used to determine whether a putative peak in the corrected data set is an actual peak.

Independent claims 46, 84, 86, and 87 were amended to incorporate the term “putative peak.” Dependent claims 73, 74, 75, 77, 80, and 88 were also amended to correspond to this amendment.

The Examiner also rejected claims 63-65, stating that the use of the term “address” was unclear. Applicants respectfully request that the Examiner withdraw this rejection. Claims 63-65 have been amended to clarify the term “address.” One of ordinary skill in the art would understand that the term “address” would refer to a point in an array of data, given the context of the term. For example, at page 15, line 12-page 17, line 4, the data is described as being in an array format. To further clarify the term, however, Applicants have amended these claims to refer to points on an array of data. Applicants therefore respectfully request that the Examiner withdraw the rejection of claims 63-65.

Claim Rejections – 35 USC §112, First Paragraph

Claims 46-86 were rejected under 35 U.S.C. 112, first paragraph, as the Examiner stated that the specification, “while being enabling for DNA samples, does not reasonably provide enablement for any biological sample.” Applicants respectfully traverse this rejection. Examples of the use of the method for analyzing DNA data are presented in the specification, but the methods of the present invention are not limited to DNA analysis. Support for the use of this method for analyzing DNA components, as well as other components, such as proteins, may be found, for example, at page 7, lines 13-20, of the specification, which states:

The data generated by the test instrument, and in particular the mass spectrometer, includes information indicative of the identification of the biological sample. More specifically, the data is indicative of the DNA composition of the biological sample. Typically, mass spectrometry data gathered

from DNA samples obtained from DNA amplification techniques are noisier than, for example, those from typical protein samples. This is due in part because protein samples are more readily prepared in more abundance, and protein samples are more easily ionizable as compared to DNA samples. Accordingly, conventional mass spectrometer data analysis techniques are generally ineffective for DNA analysis of a biological sample.

Applicants respectfully contend that the present specification teaches methods whereby biological samples, and not only processed DNA or protein samples, may be analyzed, with more confidence in analyzing the results. However, for purposes of expediting prosecution, the claims have been amended to refer to DNA samples.

Claim Rejections – 35 USC §102

Claim 91 was rejected under 35 USC 102(b) as unpatentable over Shaw (USPN 5,436,447). Applicants respectfully request that the Examiner withdraw this rejection in light of the current amendments. Claim 91 has been amended to include the steps of generating a residual baseline by removing the putative peaks from the shifted data set and removing the residual baseline from the shifted data set to generate a corrected data set. The cited reference does not disclose a system that performs these steps. Therefore, Applicants respectfully contend that claim 91 is allowable.

CONCLUSION

Applicants respectfully submit that, after entry of the amendment above, all pending claims will be in condition for allowance, and they earnestly solicit an early notice to such effect. That said, should any issues or questions remain, the Examiner is encouraged to telephone the undersigned at (760) 473-9472 so that they may be promptly resolved.

Respectfully submitted,

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By: /Sheryl R. Silverstein/

Sheryl R. Silverstein
Registration No. 40,812

Sheryl R. Silverstein
BioTechnology Law Group
527 North Highway 101, Suite E
Solana Beach, California 92075
Telephone: (760) 473-9472
Facsimile: (858) 350-9691